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A Review on: Virtual Switching System

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Abstract

Many modules have been developed to help the physical world interact with the digital world. Here, we present a new approach to Human Interaction (HCI), where we check the movement of the cursor with pointers from the camera in real time and color. Our method is to use a technology of the camera and computer vision, such as image segmentation, the background subtraction and color monitor, to control the mouse activity (left click, right click, double -click and actions scrolling) and shows how you can run all current devices, such as mice can. A color pointer has been used for the recognition and tracking of an object, so as to implement the physical contactless module with the system. Mouse click events are obtained by detecting the number of pointers to the images. The application was created with MATLAB Windows 7. This method focuses primarily on the use of a Web camera system to develop a virtual human-computer interaction device profitably.

Keywords: Human Computer Interaction, Background Subtraction, Color Detection, Web Camera, Computer.

1. Introduction

In our work, we have tried to control mouse cursor movement and click events using a camera based on colour detection technique. Here real time video has been captured using a Web- Camera.

The user wears colored tapes to provide information to the system. Individual frames of the video are separately processed.

The processing techniques involve an image subtraction algorithm to detect colours. Once the colours are detected the system performs various operations to track the cursor and performs control actions, the details of which are provided in this report.

Additional hardware is required by the system other than the standard webcam which is in every laptop computer.

The Virtual Switch is nothing more than a logical switching fabric built into your VMware infrastructure (ESX) so that you can network your Virtual Machines (VMs) however you need them.

In the following sections we will cover the basics of the Virtual Switch, terminology used, its use, configuration and management.

VSS is network system virtualization technology that pools multiple Cisco ® Catalyst ® 6500 Series Switches into one virtual switch, increasing operational efficiency, boosting nonstop communications, and scaling system bandwidth capacity to 1.4.

2. Block Diagram

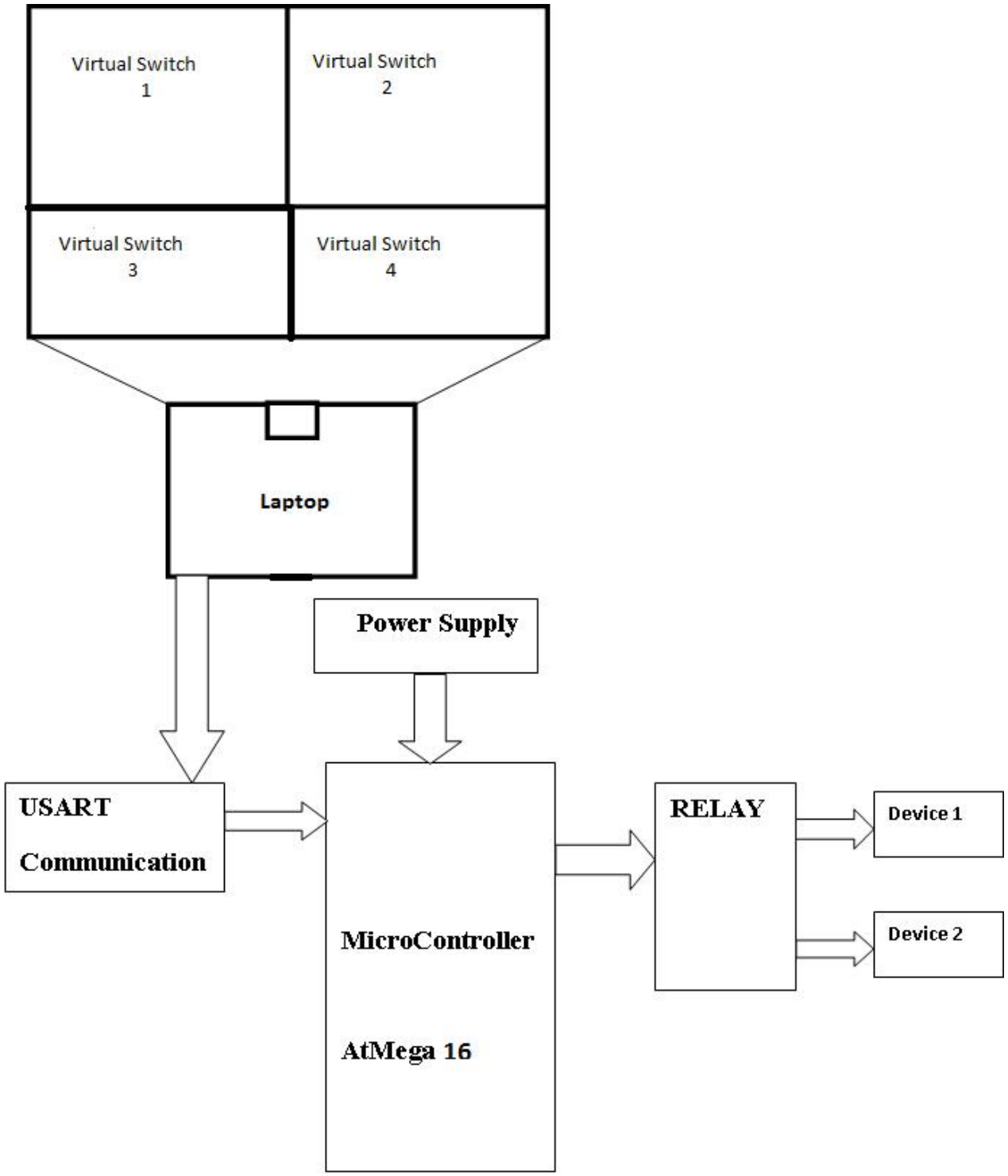

Figure 1: Block Diagram of Virtual Switching System

3. Conclusion

In this study, an application was virtual mouse based element developed and implemented with a webcam.

The system was implemented in MATLAB environment with MATLAB Image Processing Toolbox.

Refers to an adhesive blue color is used to make a quick and easy recognition. Object detection and motion tracking worked very well.

With the pointer by moving the cursor and clicking the mouse to simulate events also works well.

However, the system has some disadvantages, such as;

It is fixed to a few stairs lighting and cursor movement is very sensitive to movement. For this reason, in order to control the cursor, pointer can‘t be used efficiently for the air.

The proposed solutions for the implementation of virtual network switch system are manifold.

This diversity is both an advantage and a disadvantage. It is difficult to be sure that the choice of the most effective and durable, since recently often not well tested solutions.

New solutions are constantly being suggested those who no longer to replace long, the rage had.

They are often on a specific hypervisor, certain servers, special physical switches and a specific organization.

In the solutions that have been presented here is undoubtedly to find which is best suited when you have set all your needs in advance.

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